

CLAIMS:

1. A medical diagnostic and communications apparatus with audio output comprising:

electronic processing means for processing stethoscope signals and  
5 secondary audio signals;

an electronic stethoscope sensing means contained within a housing for transducing body sounds to electronic signals, operatively connected to the electronic processing means;

one or more secondary audio signal sources operatively connected to  
10 electronic processing means;

common audio output means connected to electronic processing means to convert electronic stethoscope signals or secondary audio signals to acoustic output, said sounds being produced separately or mixed.

15 2. A medical diagnostic and communications apparatus as in Claim 1, wherein secondary audio signals are generated by one or more audio signal sources selected from the following: microphone connected to the electronic processing means; digital voice recorder and playback means; speech recognition recorder and playback means; audio signals converted from the receiver of a wireless  
20 digital communications means; audio signals converted from cellular telephone communications means; data-to-speech conversion means wherein physiological measurements are converted to speech; data-to-speech conversion means wherein diagnostic analysis results are converted to speech; data-to-speech conversion means wherein medical information is converted to speech; auscultation signal  
25 reference recording memory comprising a multitude of medical conditions and associated auscultation sounds;

3. A medical diagnostic and communications apparatus as in Claim 2, wherein secondary audio sources are contained within the same housing as the  
30 stethoscope sensing means.

4. A medical diagnostic and communications apparatus as in Claim 1, further comprising physiological measurement means which produce physiological measurement results, the results being converted to speech for output via the  
35 common audio output means.

5. A medical diagnostic and communications apparatus as in Claim 4 wherein the physiological measurement means perform physiological measurements selected from one or more of the following: blood oxygen level; blood glucose level; blood pressure; body temperature; heart rate as derived from electronic stethoscope sensor signal; EKG measurement; ultrasonic measurement.

6. A medical diagnostic and communications apparatus as in Claim 2 further comprising means for selecting one of a multitude of languages to be used for generated speech output.

7. A medical diagnostic and communications apparatus as in Claim 2 wherein the medical information comprises pharmaceutical dosage and drug interaction data.

8. A medical diagnostic and communications apparatus as in Claim 1 further including a wireless pager means.

9. A medical diagnostic and communications apparatus as in Claim 1 further including a microphone and speech recognition means.

10. A medical diagnostic and communications apparatus as in Claim 1 further including radio frequency wireless digital communications means.

11. A medical diagnostic and communications apparatus as in Claim 1 further containing image sensor means.

12. A medical diagnostic and communications apparatus as in Claim 1 further including display means.

13. A medical diagnostic and communications apparatus as in Claim 12 further including magnifying means for magnifying the display means

14. A medical diagnostic and communications apparatus as in Claim 1 wherein the electronic processing means includes digital memory means for

storing software programs downloaded via digital communications means.

15. A medical diagnostic and communications apparatus as in Claim 1 wherein the electronic processing means comprises a handheld digital computer.

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16. A medical diagnostic and communications apparatus as in Claim 15, further containing wireless digital communications means to access remote medical information storage and retrieval means.

10 17. A medical diagnostic and communications apparatus comprising an electronic stethoscope sensor physically attached via mounting means to, and operatively connected to, electronic processing means comprising a handheld computer containing audio driver means for processing and producing stethoscope sounds from said sensor.

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18. A medical measurement and communications apparatus comprising an ultrasonic measurement sensor operatively connected to electronic processing means comprising a handheld computer containing display means for displaying images processed from said sensor.

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